

PATENT  
Serial No. 09/551,816

Amendment in Reply to Final Office Action of July 12, 2005

IN THE CLAIMS

Please amend claims 7-18 as follows:

Claims 1-6 (Cancelled)

1        7. (Currently Amended) A ~~primary radio mobile~~ station for use  
2        in a communication system including a plurality of ~~secondary radio~~  
3        ~~base~~ stations, said ~~primary mobile~~ station comprising:  
4        a multi-directional controllable antenna structure operable to  
5        transmit and receive radio signals;  
6        acquisition means for acquiring data relating to at least one  
7        of said ~~secondary base~~ stations from at least one radio signal  
8        received by said multi-directional controllable antenna structure;  
9        selection means for, based on the acquired data, conditionally  
10       selecting at least an active ~~secondary base~~ station and  
11       conditionally selecting at least an alternative ~~secondary base~~  
12       station suitable for becoming active;  
13       calculation means for calculating directions of signals  
14       received from the selected ~~secondary base~~ stations;  
15       storage means for storing the calculated directions; and

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16 control means for controlling said multi-directional  
17 controllable antenna structure in dependence of the stored  
18 directions.

1 8. (Currently Amended) The ~~primary-mobile~~ station of claim 7,  
2 further comprising:

3 tracking means for tracking a direction of the active  
4 ~~secondary-base~~ station with said multi-directional controllable  
5 antenna structure.

1 9. (Currently Amended) The ~~primary-mobile~~ station of claim 7,  
2 wherein said multi-directional controllable antenna structure  
3 includes a plurality of directional antennas;

4 wherein the acquired data are quality data associated with at  
5 least one ~~secondary-base~~ station/directional antenna pairing; and

6 wherein the active ~~secondary-base~~ station is the ~~secondary~~  
7 ~~base~~ station associated with a ~~secondary-base~~ station/directional  
8 antenna pairing having a highest quality data.

1 10. (Currently Amended) A method for controlling a multi-

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2 | ~~directional controllable antenna structure in a primary radio~~  
3 | ~~mobile station intended to communicate with a plurality of~~  
4 | ~~secondary base stations of a radio communication network, said~~  
5 | method comprising:

6 |       acquiring data relating to at least one of said ~~secondary base~~  
7 | stations from at least one radio signal received by the multi-  
8 | directional controllable antenna structure;

9 |       based on the acquired data, conditionally selecting at least  
10 | an active ~~secondary base~~ station and conditionally selecting at  
11 | least an alternative ~~secondary base~~ station suitable for becoming  
12 | active;

13 |       calculating directions of signals received from the selected  
14 | ~~secondary base~~ stations;

15 |       storing the calculated directions; and

16 |       controlling the multi-directional controllable antenna  
17 | structure in dependence of the stored directions.

1 |       11. (Currently Amended) A method for controlling a multi-  
2 | directional controllable antenna structure in a ~~primary radio~~  
3 | ~~mobile~~ station intended to communicate with a plurality of

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4 | ~~secondary base~~ stations of a radio communication network, said

5 | method comprising:

6 |       acquiring data relating to at least one of said ~~secondary base~~  
7 | stations from at least one radio signal received by the multi-  
8 | directional controllable antenna structure;

9 |       based on the acquired data, conditionally selecting at least  
10 | an active ~~secondary base~~ station and conditionally selecting at  
11 | least an alternative ~~secondary base~~ station suitable for becoming  
12 | active;

13 |       calculating directions of signals received from the selected  
14 | ~~secondary base~~ stations;

15 |       storing the calculated directions; and

16 |       controlling the multi-directional controllable antenna  
17 | structure in dependence of the stored directions.

1 |       12. (Currently Amended) The method of claim 10,

2 |       wherein the multi-directional controllable antenna structure  
3 | includes a plurality of directional antennas;

4 |       wherein the acquired data are quality data associated with at  
5 | least one ~~secondary base~~ station/directional antenna pairing; and

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6        wherein the active ~~secondary~~base station is the ~~secondary~~  
7        base station associated with a ~~secondary~~base station/directional  
8        antenna pairing having a highest quality data.

1        13. (Currently Amended) A radio communication system,  
2        comprising:

3        a plurality of ~~secondary~~base stations; and

4        a ~~primary radio~~mobile station including

5                a multi-directional controllable antenna structure  
6        operable to transmit and receive radio signals,

7                acquisition means for acquiring data relating to at  
8        least one of said ~~secondary~~base stations from at least one  
9        received radio signal,

10               selection means for, based on the acquired data,  
11        conditionally selecting at least an active ~~secondary~~base station  
12        and conditionally selecting at least an alternative ~~secondary~~base  
13        station suitable for becoming active,

14               calculation means for calculating directions of  
15        signals received from the selected ~~secondary~~base stations,

16               storage means for storing the calculated directions,

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17 and

18 control means for controlling said antenna structure  
19 in dependence of the stored directions.

1 14. (Currently Amended) The radio communication network of  
2 claim 13, wherein said ~~primary mobile~~ station further includes  
3 tracking means for tracking a direction of an active ~~secondary base~~  
4 station with said multi-directional controllable antenna structure.

1 15. (Currently Amended) The ~~primary station radio~~  
2 communication network of claim 13,  
3 wherein the multi-directional controllable antenna structure  
4 includes a plurality of directional antennas;  
5 wherein the acquired data are quality data associated with at  
6 least one ~~secondary base~~ station/directional antenna pairing; and  
7 wherein the active ~~secondary base~~ station is the ~~secondary~~  
8 base station associated with a ~~secondary base~~ station/directional  
9 antenna pairing having a highest quality data.

1 16. (Currently Amended) A computer program for use in a

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2 | ~~primary radio mobile~~ station having a multi-directional  
3 | controllable antenna structure and intended to be used in a radio  
4 | communication network having a plurality of ~~secondary base~~  
5 | stations, said computer program comprising computer program code  
6 | means to make the ~~primary radio mobile~~ station:  
7 |       acquire data relating to at least one of said ~~secondary base~~  
8 | stations from at least one radio signal received by the multi-  
9 | directional controllable antenna structure;  
10 |       based on the acquired data, conditionally select at least an  
11 | active ~~secondary base~~ station and conditionally select at least an  
12 | alternative ~~secondary base~~ station suitable for becoming active;  
13 |       calculate directions of signals received from the selected  
14 | ~~secondary base~~ stations;  
15 |       store the calculated directions; and  
16 |       control the multi-directional controllable antenna structure  
17 | in dependence of the stored directions.

1 |       17. (Currently Amended) The computer program of claim 16,  
2 | wherein said computer program further comprises computer program  
3 | means to make the ~~primary radio mobile~~ station track a direction of

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4 | the active ~~secondary-base~~ station with the multi-directional  
5 | controllable antenna structure.

1 | 18. (Currently Amended) The computer program of claim 16,  
2 | wherein the multi-directional controllable antenna structure  
3 | includes a plurality of directional antennas;  
4 | wherein the acquired data are quality data associated with at  
5 | least one ~~secondary-base~~ station/directional antenna pairing; and  
6 | wherein the active ~~secondary-base~~ station is the ~~secondary~~  
7 | ~~base~~ station associated with a ~~secondary-base~~ station/directional  
8 | antenna pairing having a highest quality data.



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